

REMARKS

I. General Remarks.

Please consider the application in view of the following remarks. Applicants thank the Examiner for carefully considering this application.

II. Disposition of Claims.

In this Response, claims 1, 5, 6, 9, 14, 15, 22, 23, 29, 35, and 38 have been amended. Claims 7, 8, 10, 11, 30, 36, and 37 were amended previously. Claims 2-4, 31-33 were cancelled previously. Claims 41-86 were withdrawn previously in response to a restriction requirement. The remaining claims are original to the application.

III. Rejection of Claims 1, 5-30, and 34-40 Under 35 U.S.C. § 102(a)-(b) or Alternatively Under 35 U.S.C. § 103(a).

The Examiner stated: "Claims 1, 5-30, and 34-40 are rejected under 35 U.S.C. 102 (a and b) as anticipated, or in the alternative under 35 U.S.C. 103(a), as being unpatentable over Sugama '395 [hereinafter "*Sugama*"], Gay et al. '295 B1 [hereinafter "*Gay et al.*"], Neely Jr '661 B2 [hereinafter "*Neely*"], or Etherton (EP 1103533) [hereinafter "*Etherton*"]." (Office Action at 2.) Applicants respectfully disagree.

A. Remarks Regarding the Examiner's Rejections Under 35 U.S.C. § 102(a)-(b).

Claims 1, 5-30, and 34-40 stand rejected under 35 U.S.C. § 102 (a)-(b) as being anticipated by *Sugama*, *Gay et al.*, *Neely*, or *Etherton*. (Office Action at 2.) Applicants respectfully traverse, and assert that these references do not disclose every element of the subject claims. Indeed, Applicants' independent claims 1 and 30 recite a "dispersant composition comprising a surfactant and a hydrolyzed protein," which the cited references fail to show.

1. *Sugama* Does Not Teach Every Element of the Claims as Required to Anticipate the Claims.

With respect to *Sugama*, the Examiner has stated that:

Sugama teaches a composition for wells comprising cement, hydrolyzed protein (col.3, line 17), and surfactant (see col.3 for foam stabilizers in lines 20-25 and col.4, line 9) thus anticipating the instant invention. Even if not anticipated, overlapping ranges of amounts would have been prima facie obvious to one of ordinary skill in the art.

(Office Action at 2.) To anticipate Applicants' invention, *Sugama* must teach every element of the invention. MANUAL OF PATENT EXAMINING PROCEDURE § 2131 (8th ed., rev. 2, May 2004) [hereinafter MPEP]. Applicants respectfully submit that *Sugama* does not teach using a hydrolyzed protein in combination with a surfactant as a dispersant composition in methods of cementing as recited in independent claims 1 and 30. Rather, *Sugama* teaches using surfactants and hydrolyzed proteins in a "foam generator," i.e., a "foaming agent," which produce lightweight cement slurries by introducing air bubbles into an ordinary cement slurry. (*Sugama* at col. 2, ll. 59-67.) *Sugama* does not teach Applicants' invention; therefore, it does not anticipate Applicants' invention. The rejection over *Sugama* should be withdrawn.

2. *Gay et al.* Does Not Teach Every Element of the Claims as Required to Anticipate the Claims.

With respect to *Gay et al.*, the Examiner has stated that:

Gay et al. '295 B1 teach a method of mixing a cement (ie a method of cementing) by mixing a binder such as cement (col.6, line 9), hydrolyzed protein foaming agent (col.5, second paragraph), and surfactant. Note that POLYOX or polyethylene oxide is one example of a surfactant which is the foam stabilizer (col.5, lines 30-35).

(Office Action at 2-3.) To anticipate Applicants' invention, *Gay et al.* must teach every element of the invention. MPEP § 2131. Applicants respectfully submit that *Gay et al.* does not teach using a hydrolyzed protein in combination with a surfactant as a dispersant composition in methods of cementing as recited in independent claims 1 and 30. Rather, *Gay et al.* teaches using "polyethylene oxide" as a "foam stabilizing agent" (*Gay et al.* at col. 5, ll. 15-16, 31-33)

and a hydrolyzed protein as a “foaming agent” (*id.* at col. 5, ll. 4-6). Moreover, according to the manufacturer, POLYOX is not a surfactant; rather, it is a water-soluble, nonionic, high-molecular weight resin or polymer. (“Introduction to POLOX-Water Soluble Resins,” at <http://www.dow.com/polyox/intro.htm>.) *Gay et al.* does not teach Applicants’ invention; therefore, it does not anticipate Applicants’ invention. The rejection over *Gay et al.* should be withdrawn.

3. *Neely* Does Not Teach Every Element of the Claims as Required to Anticipate the Claims.

With respect to *Neely*, the Examiner has stated that:

Neely Jr ‘661 B2 teach mixing an alkali metal silicate cement, wetting agent such as surfactants including non-ionic, cationic, anionic, amphoteric, and zwitterionic (col.6, lines 40-50). Neely also teach the addition of hydrolyzed proteins (col.7 line 15) thus anticipating the instant invention. Even if not anticipated, overlapping ranges of amounts would have been *prima facie* obvious to one of ordinary skill in the art.

(Office Action at 3.) To anticipate Applicants’ invention, *Neely* must teach every element of the invention. MPEP § 2131. Applicants respectfully submit that *Neely* does not teach using a hydrolyzed protein in combination with a surfactant as a dispersant composition in methods of cementing as recited in independent claims 1 and 30. Rather, *Neely* teaches “coating compositions” that may be applied to a cement substrate. (*Neely* at col. 3, ll. 51-53.) Although the coating compositions may comprise surfactants (*id.* at col. 3, ll. 64-65), the coating compositions only comprise hydrolyzed proteins when they are used to coat stainless steel (*id.* at col. 6, ll. 3-9, col. 7, ll. 11-16). In addition, the surfactant and hydrolyzed protein are not used as a dispersant composition: the surfactant is used as a “wetting agent” (*id.* at col. 6, ll. 40-47) and the hydrolyzed protein is used as a “humectant” (*id.* at col. 7, ll. 10-16). *Neely* does not teach Applicants’ invention; therefore, it does not anticipate Applicants’ invention. The rejection over *Neely* should be withdrawn.

4. *Etherton* Does Not Teach Every Element of the Claims as Required to Anticipate the Claims.

With respect to *Etherton*, the Examiner has stated that:

Etherton (EP 1103533 abstract) teach a process for cementing to make concrete by mixing cement with hydrolyzed protein and surfactant thus anticipating the instant invention. Even if not anticipated, overlapping ranges of amounts would have been prima facie obvious to one of ordinary skill in the art.

(Office Action at 3.) To anticipate Applicants' invention, *Etherton* must teach every element of the invention. MPEP § 2131. Applicants respectfully submit that *Etherton* does not teach using a hydrolyzed protein in combination with a surfactant as a dispersant composition in methods of cementing as recited in independent claims 1 and 30. Rather, *Etherton* teaches a "foaming agent" that is "a blend of hydrolyzed protein and surfactants." (*Etherton* at col. 10, ll. 55-56.) *Etherton* does not teach Applicants' invention; therefore, it does not anticipate Applicants' invention. The rejection over *Etherton* should be withdrawn.

B. Remarks Regarding the Examiner's Rejections Under 35 U.S.C. § 103(a).

Claims 1, 5-30, and 34-40 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Sugama*, *Gay et al.*, *Neely*, or *Etherton*. (Office Action at 2.) Applicants respectfully traverse, and assert that the cited references do not teach or suggest a cement composition comprising a "dispersant composition comprising a surfactant and a hydrolyzed protein," as required by the subject claims. Because the Examiner has not stated that a combination of these references forms the basis for this rejection, Applicants have treated each cited reference individually below.

1. *Sugama* Does Not Teach or Suggest Every Element of the Claims as Required to Obviate the Claims.

With respect to *Sugama*, the Examiner has stated that:

Sugama teaches a composition for wells comprising cement, hydrolyzed protein (col.3, line17), and surfactant (see col.3 for foam stabilizers in lines 20-25 and col.4, line 9) thus anticipating

the instant invention. Even if not anticipated, overlapping ranges of amounts would have been prima facie obvious to one of ordinary skill in the art.

(Office Action at 2.) To obviate Applicants' invention, *Sugama* must teach or suggest every element of the invention. MPEP § 2143 & 2143.03. Applicants respectfully submit that *Sugama* does not teach or suggest using a hydrolyzed protein in combination with a surfactant as a dispersant composition in methods of cementing as recited in independent claims 1 and 30. Rather, *Sugama* teaches using surfactants and hydrolyzed proteins in a "foam generator," i.e., a "foaming agent," which produce lightweight cement slurries by introducing air bubbles into an ordinary cement slurry. (*Sugama* at col. 2, ll. 59-67.) *Sugama* does not teach or suggest Applicants' invention; therefore, it does not obviate Applicants' invention. The rejection over *Sugama* should be withdrawn.

2. *Gay et al.* Does Not Teach or Suggest Every Element of the Claims as Required to Obviate the Claims.

With respect to *Gay et al.*, the Examiner has stated that:

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(Office Action at 2-3.) To obviate Applicants' invention, *Gay et al.* must teach or suggest every element of the invention. MPEP § 2143 & 2143.03. Applicants respectfully submit that *Gay et al.* does not teach or suggest using a hydrolyzed protein in combination with a surfactant as a dispersant composition in methods of cementing as recited in independent claims 1 and 30. Rather, *Gay et al.* teaches using "polyethylene oxide" as a "foam stabilizing agent" (*Gay et al.* at col. 5, ll. 15-16, 31-33) and a hydrolyzed protein as a "foaming agent" (*id.* at col. 5, ll. 4-6). Moreover, as discussed above, POLYOX is not a surfactant. *Gay et al.* does not teach or suggest Applicants' invention; therefore, it does not obviate Applicants' invention. The rejection over *Gay et al.* should be withdrawn.

3. *Neely* Does Not Teach or Suggest Every Element of the Claims as Required to Obviate the Claims.

With respect to *Neely*, the Examiner has stated that:

Neely Jr '661 B2 teach mixing an alkali metal silicate cement, wetting agent such as surfactants including non-ionic, cationic, anionic, amphoteric, and zwitterionic (col.6, lines 40-50). *Neely* also teach the addition of hydrolyzed proteins (col.7 line 15) thus anticipating the instant invention. Even if not anticipated, overlapping ranges of amounts would have been prima facie obvious to one of ordinary skill in the art.

(Office Action at 3.) To obviate Applicants' invention, *Neely* must teach or suggest every element of the invention. MPEP § 2143 & 2143.03. Applicants respectfully submit that *Neely* does not teach or suggest using a hydrolyzed protein in combination with a surfactant as a dispersant composition in methods of cementing as recited in independent claims 1 and 30. Rather, *Neely* teaches "coating compositions" that may be applied to a cement substrate. (*Neely* at col. 3, ll. 51-53.) Although the coating compositions may comprise surfactants (*id.* at col. 3, ll. 64-65), the coating compositions only comprise hydrolyzed proteins when they are used to coat stainless steel (*id.* at col. 6, ll. 3-9, col. 7, ll. 11-16). In addition, the surfactant and hydrolyzed protein are not used as a dispersant composition: the surfactant is used as a "wetting agent" (*id.* at col. 6, ll. 40-47) and the hydrolyzed protein is used as a "humectant" (*id.* at col. 7, ll. 10-16). *Neely* does not teach or suggest Applicants' invention; therefore, it does not obviate Applicants' invention. The rejection over *Neely* should be withdrawn.

4. *Etherton* Does Not Teach or Suggest Every Element of the Claims as Required to Obviate the Claims.

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(Office Action at 3.) To obviate Applicants' invention, *Etherton* must teach or suggest every element of the invention. MPEP § 2143 & 2143.03. Applicants respectfully submit that

Etherton does not teach or suggest using a hydrolyzed protein in combination with a surfactant as a dispersant composition in methods of cementing as recited in independent claims 1 and 30. Rather, *Etherton* teaches a "foaming agent" that is "a blend of hydrolyzed protein and surfactants." (*Etherton* at col. 10, ll. 55-56.) *Etherton* does not teach or suggest Applicants' invention; therefore, it does not obviate Applicants' invention. The rejection over *Etherton* should be withdrawn.

SUMMARY

In light of the above remarks, Applicants respectfully request reconsideration and withdrawal of the outstanding rejections. Applicants further submit that the application is now in condition for allowance, and earnestly solicit timely notice of the same. Should the Examiner have any questions, comments, or suggestions in furtherance of the prosecution of this application, the Examiner is invited to contact the attorney of record by telephone, facsimile, or electronic mail.

Applicants believe that there are no fees due in association with this filing of this Response. However, should the Commissioner deem that any fees are due, Applicants respectfully request that the Commissioner accept this as a petition therefor, and direct that any additional fees be charged to Baker Botts L.L.P.'s Deposit Account No. 02-0383 (Reference Number 063718.0341).

Respectfully submitted,

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Date: February 21, 2005